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Where have all the children gone? Decreases in Paediatric **Emergency Department attendances at the start of the** COVID-19 pandemic of 2020.

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Where have all the children gone? Decreases in Paediatric Emergency Department attendances at the start of the COVID-19 pandemic of 2020.

On Wednesday March 11<sup>th</sup> 2020, the World Health Organization (WHO) declared a global pandemic of COVID-19<sup>1</sup> – the disease caused by SARS-CoV-2, a novel coronavirus first reported in Wuhan, China in December 2019<sup>2</sup>. Whilst the body of knowledge around the virus and the disease it causes grows on a daily basis, relatively little is known about the course of COVID-19 in children and young people (CYP, defined here as those under the age of 16)<sup>3</sup>.

If the epidemiology of the pandemic in the UK follows that of countries with similar demographics and healthcare provision, it is likely that the burden of disease will fall predominantly on older age groups<sup>4</sup>. Although CYP can become infected with SARS-CoV-2, it appears that they are mainly asymptomatic or experience mild symptoms<sup>3</sup>, resulting in a much smaller number of COVID-19-related ED attendances in those under the age of 16. Many clinicians have reported the beginning of a trend of decreasing attendances at EDs, following the start of the pandemic, particularly amongst paediatric populations.

We therefore compared weekly ED attendance data for CYP (< 16 years of age at presentation) attending since the first reported cases of COVID-19 in the UK (end of January 2020) with the same weeks in 2019 (Figure 1). Two hospitals in Greater Manchester were included, a large district general hospital (DGH) with a co-located Paediatric Emergency Department (PED) and a regional children's hospital (CH) providing secondary and tertiary care via a dedicated CYP-only PED.

When comparing the months of February and March in 2019 and 2020, the DGH saw PED attendances decrease by 5.6% and 30.4% respectively, and the CH decreases of 0.6% in February 2020 and 33.8% in March. The decrease in attendances amongst CYP has accelerated since the "UK lockdown" announcement of March 23<sup>rd</sup> 2020.

## FIGURE 1 HERE

The question is, therefore, where have all the children gone? The reasons that they aren't attending (or, in most cases, being brought) are almost certainly a complex reflection of the changing behaviours and concerns of their parents and carers in a pandemic situation, but the real concern is that they remain at home, some of them with very important and serious pathology that can (and needs to) be treated. Additionally, the current social distancing measures mean that children living in difficult circumstances have reduced access to the safety net of regular contact with education, health, and social care professionals. This may have an impact on the number of vulnerable children experiencing neglect or maltreatment, in the same way increases in domestic violence are being reported in media around the world.

Whilst CYP – by virtue of their apparently less serious clinical course – may be relatively invisible within the current pandemic, this has wide ranging implications and warrants further investigation. Whilst we have presented here a very limited initial analysis of an emerging dataset, we would encourage colleagues around the world to capture information around their own patterns of attendance and reflect (and then act) on the wider implications of what they find.

## References

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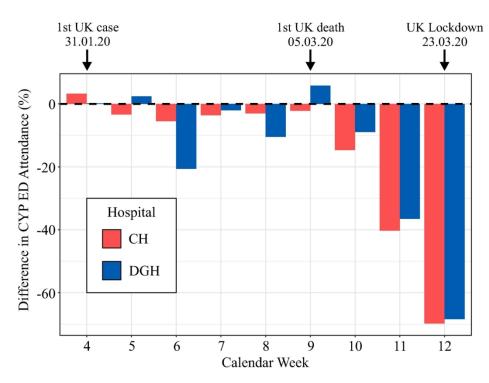


Figure 1. Weekly comparison of children and young people (< 16 years of age at presentation), attending the Paediatric Emergency Departments at the District General Hospital (DGH) and Children's Hospital (CH), 2019 vs 2020.

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